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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,470	09/28/2004	Francisco Speich	P/4302-12 (PCT)	7352

7590
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01/24/2008

EXAMINER

MUROMOTO JR, ROBERT H

ART UNIT	PAPER NUMBER
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3765

MAIL DATE	DELIVERY MODE
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01/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/509,470

Applicant(s)

SPEICH ET AL.

Examiner

Robert H. Muromoto, Jr.

Art Unit

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/17/2004, 9/28/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations in claims 18 and 22 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because the recitations, "The invention relates to..." and legalese such as "means" and "comprises" are not proper language for US patent practice. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites a "cordless thread control device" but the claim does not require a "cordless" arrangement. In fact, the claim recites 'and/or' that alternatively recites a driver connected by an elastic damper or a contactless (cordless) magnetic coupling. The broadest reasonable interpretation is the alternative situation (i.e. elastic damper or contactless magnetic coupling). Therefore the claim does not require a 'cordless' arrangement as set forth by the claim's preamble. It is not clear how the 'elastic damper' is 'cordless'. All claims are examined according to the requirement having an elastic damper connection.

Claim 22 is ambiguous and has no clear meaning. The recitation "has an equal division" has no clear meaning.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-17, 19-21, and 23-27 to the extent they are understood by the Examiner are rejected under 35 U.S.C. 102(b) as being anticipated by Speich et al., US patent 6,079,455.

'455 discloses, "FIG. 1 and FIG. 2 as well as diagrams 3 and 4 illustrate the principle underlying the invention disclosed hereunder, i.e. an oscillating system consisting of a dragging element 2 for the transverse movement of a thread 4, the dragging element 2 being attached to a machine frame 10 by means of an upper spring 6 and a lower spring 8.

FIG. 5 and diagram 6 show the oscillating system of FIG. 1 and FIG. 2, the device, however, being supplemented by an upper arresting device 12 and a lower arresting device 14, which are designed as electromagnetic units and can be controlled by a control unit 16. The arresting devices 12 and 14 deflect the oscillating dragging element 2 during each oscillation into the extreme position determined by the amplitude A. Thereby, the arresting devices 12 and 14 serve both to supply energy, as they make up for the reduction of the

oscillation by .DELTA.A, and to control the oscillating system. Thus the dragging element can for an adjustable period t_s , for example for a full oscillation, be kept in the upper or lower position as this is illustrated by curve sections 13b and 13c of curve 13 in FIG. 6. Thus, the transverse movement of the thread 4 can be individually controlled in the way required, for example, for the production of patterned fabrics on a weaving loom.”

The ‘oscillating system’ equates to the “at least one lifting device driven in oscillation”; the dragging element 2 equates to the “at least one driver element”; the arresting devices 12, 14 equate to ‘detaining devices’.

Arresting devices 12, 14 act as damping devices and include control means as claimed.

The dragging elements inherently have some ‘bend resistance” or else they would not be strong enough to operate during a normal weaving process.

The dragging elements are connected to springs 6 and 8, that are ‘elastic damping’ members.

Arresting devices 12, 14 act as stops as claimed.

An embodiment in figure 8, clearly shows an actuator with permanent, oblique magnet means with poles in line with the direction of movement, as claimed.

Claims 20, 21, 23 are clearly disclosed in citation above.

Springs are clearly disclosed.

Figure 5 shows a ‘locking recess’ at the upper position. The locking is performed by the magnetic field.

Figure 22 clearly shows a 'return spring' as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Speich '455 in view of Duhamel US patent 6,105,628.

Although '455 discloses essentially all of the limitations of the claims above, '455 does not teach the poles of the magnet arranged transverse to the direction of the driver (horizontal). However, this arrangement is considered by the examiner to be an engineering design choice that a skilled artisan would have been able to determine through routine variation and experimentation.

As evidence, the examiner cites Duhamel that teaches an electromagnetic actuator for shedding in looms that can be pushed by 'transverse' or in-line magnetic fields by arranging the magnets to have poles 'transverse' or in-line with the actuator movement.

Therefore it would have been an obvious variant to arrange the magnetic poles of the magnets transversely to the direction of movement.

Examiner Comment

With respect to the 'contactless coupling' in claim 14, the examiner has cited US patent 3573517 that gives a clear teaching of magnetically driven actuators that use so-

called "contactless" couplings to provide damping properties to oscillation systems that are operated at very high oscillation rates (i.e. weaving).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H. Muromoto, Jr. whose telephone number is 571-272-4991. The examiner can normally be reached on 8-530, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on 571-272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Bobby Muromoto
/Bobby Muromoto/
Patent examiner
Art unit 3765
January 10, 2008